Course Description Form	
Course Code and Name	CENG307 FILE ORGANIZATION
Course Semester	5
Catalog Content	Introduction, File Structures, Organization and Processing, Physical aspects of storage area, Sequential file development, decomposition/composition algorithms, Direct file processing techniques, Indexed file processing techniques, Multi-list File Organization, Introduction to Database Management Systems
Textbook	Tharp, A. L. (2008). File organization and processing. John Wiley & Sons.
Supplementary Textbooks	Folk, M. J. (2006). File structures: An object-oriented approach with C++. Pearson Education India. Wiederhold, G. (1987). File organization for database design. McGraw-Hill College.
Credit	4
Prerequisites of the Course (*Attendance Requirements*)	Prerequisites course: No Co-requisites: Obligatory course attendance 70%
Type of the Course	Compulsory
Instruction Language	English
Course Objectives	To teach File Structures, Organization and Processing To teach Physical aspects of storage area To teach Sequential file development To teach Decomposition/composition algorithms To teach Direct file processing techniques To teach Indexed file processing techniques To teach Multi-list File Organization To teach Introduction to Database Management Systems
Course Learning Outcomes	Investigating the structure of files which is one of the fundamental concepts of computer science Strengthening the conceptual understanding of computer science fundamentals
Instruction Methods	The mode of delivery of this course is face to face.

Weekly Schedule	1. week: Introduction 2. week: File Structures, Organization and Processing 3. week: File Structures, Organization and Processing 4. week: Physical aspects of storage area 5. week: Sequential file development 6. week: Decomposition/composition algorithms 7. week: Decomposition/composition algorithms 8. week: Direct file processing techniques 9. week: Direct file processing techniques 10. week: Indexed file processing techniques 11. week: Indexed file processing techniques 12. week: Multi-list File Organization 13. week: Multi-list File Organization 14. week: Introduction to Database Management Systems
Teaching and Learning Methods *(These are examples. Please fill which activities you use in the course)*	Theoretical study per week: 3 Reading Designing and Applying Materials Midterm and Studying for Midterm Final and Studying for Final

Assessment Criteria

	Numbers	Total Weighting (%)	
Midterm Exams	1	30	
Assignment	2	20	
Application	0	0	
Projects	0	0	
Practice	0	0	
Quiz	4	10	
Percent of In-term Studies (%)		60	
Percentage of Final Exam to Total Score (%)		40	
Attendance		-	

	Activity	Total Number of Weeks	Duration (weekly hour)	Total Period Work Load
Workload	Weekly Theoretical Course Hours	14	3	42
	Weekly Tutorial Hours	0	0	0
	Reading Tasks	14	2	28
	Studies	0	0	0
	Material Design and Implementation	2	6	12
	Report Preparing	0	0	0
	Preparing a Presentation	0	0	0
	Presentations	0	0	0
	Midterm Exam and Preparation for Midterm Exam	1	8	8
	Final Exam and Preparation for Final Exam	1	10	10
	Other (should be emphasized)	0	0	0
	Total Workload			100
	Total Workload / 25			4
	Course Credit (ECTS)			4

No	Program Outcomes	1	2	3	4	5
	Contribution Level Between Course Learning Outcomes and Program Outcomes					
1	Sufficient knowledge on mathematics, science and computer engineering; ability to apply theoretical and practical knowledge in these areas to model and solve engineering problems			X		
2	Ability to identify, define, formulate and solve complex engineering problems; ability to choose and apply appropriate analysis and modelling methods for these purposes			X		
3	Ability to design a complex system, process, device, software, algorithm, or product under realistic constraints and circumstances to meet certain requirements; ability to apply modern design techniques for this purpose			X		
4	Ability to choose, develop and use modern techniques and tools necessary for engineering applications; ability to effectively use computing technologies				X	
5	Ability to design and implement systems or experiments to solve engineering problems, collect and interpret data to evaluate and analyze the results of solutions				X	
6	Ability to work effectively in intradisciplinary and interdisciplinary teams or individually		X			

No	Description				
7	Ability to efficiently prepare, evaluate and interpret reports	X			
8	Ability to make presentations and conduct effective verbal and written communication in Turkish and English	X			
9	Awareness of the necessity of lifelong learning; ability to access information, follow scientific and technological developments; ability to perpetually renew oneself			X	
10	Awareness of professional and ethical responsibility, ability to act in accordance with ethical principles	X			
11	Ability to apply knowledge on project management, risk management and change management		X		
12	Awareness of entrepreneurship and innovation, ability to design and build sustainable systems	X			
13	Ability to devise local and global solutions to contemporary issues considering the effects of engineering applications on health, environment and security	X			
14	Awareness of the legal consequences of engineering solutions	X			
15	Ability to apply knowledge on software development process and documentation rules	X			
16	Knowledge on standards used in engineering applications		X		
17	Awareness of occupational health and security, information security and privacy	X			

The Course's Lecturer(s) and Contact Information	Assoc. Prof. Dr. Hacer KARACAN hkaracan@gazi.edu.tr